Correspondence

Da Costa's syndrome or neurocirculatory asthenia

Sir,

Da Costa's syndrome or its major physiological elements are common in patients with normal coronary arteries and in coronary arterial disease,¹⁻³ and their management lies in the province of cardiac rehabilitation. From the therapeutic point of view it is surprising to find Dr Paul (1987;58:306-15) omitting some of the most important considerations. For example, he does not refer to the extensive work that has given a leading aetiological role to hypocapnia and respiratory alkalosis.^{4,5} Failure to recognise this role of hyperventilation is an error: its neglect prevents a rational approach to the dynamic factors that are capable of reducing the coronary circulation,¹⁻³ it invites a needlessly high surgical referral rate,³ and takes away the possibility of dealing with a major cause of illness behaviour after myocardial infarction.¹⁻³

The exhaustion factor so well known to Thomas Lewis and James Mackenzie requires treatment because it promotes high levels of arousal and sympathetic nervous activity that are aggravated by hyperventilation, together with habituation defects, limbic dysfunction, and disturbed activity of the left cerebral hemisphere.^{6,7} The high levels of arousal interfere with sleep, reduce anabolic opportunities,² and lower the threshold for angina pectoris.² Defective habituation encourages the heart rate, the blood pressure, and other neuroendocrine responses to stimuli to become "undamped" and excessive, and thereby reduces the capacity for effort. The patient's furious struggling to keep up a customary range of activities perpetuates the arousal and increases the disabilities.⁸

We believe that the cardiac rehabilitation programme should accommodate these physiological factors and pay close attention to sleep, arousal, the breathing, the balance of rest and effort, and the self-esteem of the patient (acronym, SABRES).^{2,9}

Reassurance does not have a longlasting effect upon the physiological degradation caused by hyperventilation and disordered habituation, nor can physical training restore high level fitness and stamina where performance is undermined by sleep loss, hyperarousal, hyperventilation, exhaustion, and loss of self esteem from seemingly endless cycles of frustration and defeat.

Dr Paul's recommendations sound uncomfortably like those that obtained no more than a 15% recovery rate in the era before we learned about hyperventilation and habituation.

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This letter was shown to the author, who replies as follows:

Sir,

I thank Miss King and Dr Nixon for their comments on my review of Da Costa's syndrome (1987;58:306-15).